



Manual

Safescan 2200 series



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In the box:

- Safescan 2200 series banknote counter
- Power cables (EUR/UK/SWISS)
- Dust cover
- Service kit
- User manual

Thank you for choosing Safescan 2200 series banknote counter. Before using the machine, please read this manual thoroughly in order to familiarize yourself with the functions and operations of the machine.

The Safescan 2200 series banknote counters are professional and reliable with outstanding performance. They feature various kind of counterfeit detections, double note, size-detection and counting for sorted notes. Its compact design makes it an invaluable tool for banks, casino's, supermarkets, movie theatres and other retail environments.

There are 2 models available:

1. **Safescan 2210**, this machine counts at a speed of 1.000 notes per minute and performs add and batch counting functions, including UV, IR and Size detection.
2. **Safescan 2250**, in addition to the functions of the 2210, the 2250 has an integrated counterfeit detection system using MG detection functions.

NOTE:

- Before turning the power on, please make sure that there are no objects obstructing the operation of the rollers and wheels.
- Do not place the machine in a damp environment. This will cause leakages of electricity and a risk of electric shocks.
- When you have finished counting, switch off the machine and remove the plug from the power outlet.
- Banknotes that have been washed (along with clothings for example) may lose the UV properties and cause a "false alarm".
- If the banknotes are dirty, this may alter the infrared absorption features and cause a "false alarm".

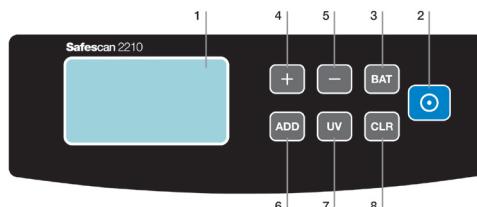
1.0 GENERAL PARTS & CONTROLS

1.1 Parts of the machine

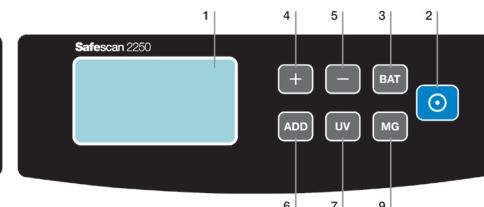


1.2 Control panels

2210



2250



General items

- LCD screen
- [START] button: Press to start counting and clear previous counting results. Press and hold for 3 seconds to (in)activate the automatic start stop function.
- [BAT] button. Press to activate batch function.
 - 1st press = Set batch quantity to 100 banknotes
 - 2st press = Set batch quantity to 50 banknotes
 - 3st press = Set batch quantity to 20 banknotes
 - 4st press = Set batch quantity to 10 banknotes
 - 5st press = Set batch quantity to 0 banknotes, this inactivates the batch function
 Press and hold for 3 seconds to set the sensitivity of the banknote size detection.
- [+] button. Press to adjust the batch number. Press and hold till a beep sounds to return to default factory settings.
- [–] button. Press to adjust the batch number. Press and hold for 3 seconds to (in)activate adding counting results of suspected banknotes to the count total.

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6. [ADD] button. Press to activate the ADD function. Press and hold for 3 seconds to set the IR detection sensitivity level.
 7. [UV] button. Press to (in)activate UV (ultra violet) counterfeit detection. Press and hold for 3 seconds to set the UV detection sensitivity level.

Product specific items

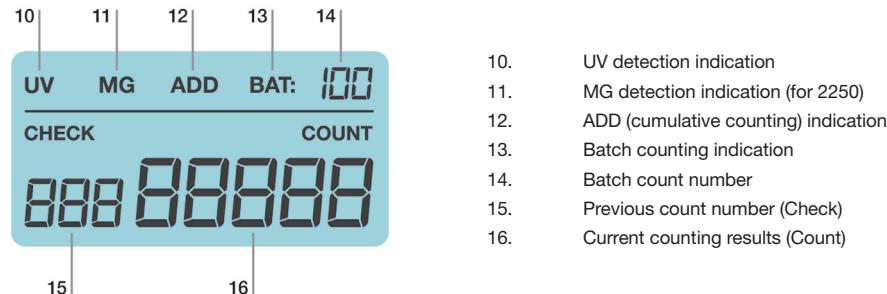
2210

8. [CLEAR] button. Press to clear count results & Batch settings.

2250

2. [START] button. Press to clear previous counting result.
9. [MG] button. Press to (in)activate MG (magnetic features) counterfeit detection. Press and hold for 3 seconds to set the MG detection sensitivity level.

1.3 LCD screen



2.0 OPERATION

Connect the power cord (enclosed) with the machine, then connect the power cable to a power socket and switch On the machine.

When powered On, the machine will start making a self-test to check if all functions are working well. During this self-test the machine will beep and the LCD screens are displaying the model number. After 3 seconds the screens will display '0'. The machine is now ready for usage.

Note: The default settings of the machines are:

2210

Add & Batch function: Off, UV detection: On, Counting mode: automatic

2250

Add & Batch function: Off, UV + MG detection: On, Counting mode: automatic

If the machine found a problem during the self-test, an error code will be shown on the main LCD screen. Please refer to chapter 7.2 for troubleshooting and solve the problem.

3.0 COUNTING

3.1 Counting modes

This machine has two counting modes: automatic and manual.

3.1.1 Automatic (default)

Press and hold the [START] button until [COUNT] screen displays “YES”, indicating that the machine is now in automatic counting mode. Press [START] again to confirm the selection.

Directly after placing banknotes on the hopper the machine will start counting automatically.

3.1.2 Manual

Press and hold the [START] button until the [COUNT] screen displays “NO”, indicating that the machine is now in manual counting mode. Press [START] again to confirm the selection.

When in manual mode, the machine will start counting after pressing the [START] button.

Note: next time you power on the machine, it will be set in the counting mode you have last chosen.

3.2 Correct method for inserting a stack of banknotes

Place a stack of banknotes in the center of the hopper and start counting. Place the banknotes between the banknote guides as shown in (Image 1) below. Then, swiftly, push the banknotes backward on the hopper plate (Image 2).



Image 1



Image 2

3.3 Counting results

The [COUNT] screen will display the number of banknotes counted. When your first count is completed, remove the counted notes from the stacker and begin a second count. The quantity of notes already counted, will shift from the [COUNT] screen to the [CHECK] screen and the [COUNT] screen will now display the quantity of the second count. This enables the user to check whether the machine is counting accurately.

4.0 ADD AND BATCH FUNCTIONS

4.1 ADD-function

The Add-function is for adding counting results. Using the Add-function, you can add new counting results to previously made counting results. This function is useful if you need to count more banknotes than the capacity of the hopper allows. The counting results will be displayed on the main digital screen.

If you press the [ADD] button once, the machine ‘beeps’ and the Add-indicator will light up, indicating the adding function is activated. Press [ADD] again to switch Off the Add-function. The Add-indicator will switch Off.

Note: after power off, the machine will start up with the Add-function: Off

4.2 BATCH-function

With the Batch-function you can pre-set the machine to count the exact quantity of notes that you require.

Press [BAT] to pre-set the batch number (100, 50, 20, 10 sheets). The batch indicator will light up, indicating the batch-function is active.

Press the [+] or [-] button to modify the batch number with 1 sheet. Hold the [+] or [-] button to modify the batch number per 5 sheets.

After you have finished the pre-setting procedure, put the banknotes into the hopper. The unit will count the banknotes until it reaches the quantity you have pre-set.

If the last stack of banknotes contains less sheets than the pre-set batch number, the [COUNT] screen will flash continuously when the machine has finished counting.

Note: after power off, the machine will start up with the Batch-function: Off

4.3 Using the Add- & Batch-function together

It is possible to count banknotes with both Add- & Batch-functions active. To use these functions together, activate the Add-function by pressing the [ADD] button and then pre-set the desired batch quantity.

During the counting process, the [COUNT] screen will show the total counted quantity. Every time the pre-set batch quantity is reached, the machine will stop counting. After removing the banknotes from the stacker, the machine will continue the counting.

The [COUNT] screen will flash continuously if the end result of the count is not a multiplied number of the pre-set batch quantity. When new banknotes are added to the hopper, the machine will continue counting to reach the pre-set batch quantity.

4.4 Sort count function

The 2200 series banknote counters are equipped with a size detection function. This function can help to prevent wrong counting results in case of one or more different banknotes which were mixed in the sorted banknotes by mistake. The machine will alarm if a banknote with a different size than the first counted banknote is detected.

Following the alarm, on the [CHECK] screen "E4" will be blinking. The machine will automatically stop counting. The banknote of the different denomination will be the last counted banknote in the stacker.

5.0 COUNTERFEIT DETECTION

5.1 Detection methods

E1. UV detection

If the machine detects a banknote with suspected UV properties, an alarm will sound and the [CHECK] screen will blink 'E1'+'UV'. Counterfeit notes reflect UV light, making the surface of the note shine very bright. Genuine banknotes absorb ultraviolet light.

E2. MG detection (only available for 2250 model)

If the machine detects a banknote with suspected MG properties, an alarm will sound and the [CHECK] screen will blink 'E2'+'MG'. Most genuine banknotes are printed using magnetic ink. If the machine detects a note without magnetic ink, it will consider it as counterfeit.

E3. IR detection

Using this detection system, an alarm will sound and the [CHECK] screen will blink 'E3' if counterfeit or folded notes appear.

5.2 Adjusting the sensitivity of the counterfeit detection

The Safescan 2200 series are equipped with adjustable sensors. This makes it possible to fine-tune the sensors sensitivity to make the machine ready for every currency or banknote conditions.

Note: fine tuning the sensitivity is only needed when false counterfeit alarms occur. Before changing the sensitivity levels, please first check chapter 7.0.

5.2.1 Adjusting the UV sensitivity

Press and hold the [UV] button until the [CHECK] screen will display "Axx", which means that the UV system is ready for adjustment. You can now increase or reduce the sensitivity by pressing the [+] or [-] button. Press the [START] button to confirm the adjustment made.

5.2.2. Adjusting the MG sensitivity (only available for 2250 model)

Press and hold the [MG] button until the secondary LCD screen will display "Bxx", which means that the MG system is ready for adjustment. You can now increase or reduce the sensitivity by pressing the [+] or [-] button. Press the [START] button to confirm the adjustment made.

5.2.3 How to adjust the IR sensitivity

Press and hold the [ADD] button until the secondary LCD screen will display "Cxx", which means that the IR system is ready for adjustment. You can now increase or reduce the sensitivity by pressing the [+] or [-] button. Press the [START] button to confirm the adjustment made.

Note: it is possible to pre-set the machine to add suspect notes to the count results.

To switch between the 2 options: Press and hold the [-] button until the [COUNT] screen displays: U00 or U01.

Press the [START] button to confirm your selection.

U00= No adding of suspected banknotes to the count total

U01= Add suspected notes to the count total

5.3 Adjusting the sensitivity of the Size detection

Press and hold the [BAT] button until the [COUNT] screen displays [dXX]. You can now increase or reduce the sensitivity by pressing the [+] or [-] button. Press the [START] button to confirm the adjustment made.

6.0 RETURN TO THE FACTORY DEFAULT SETTINGS

Press and hold the [+] button until you hear a 'beep' indicating the settings are restored. The machine is now returned to the default settings.

7.0 ERROR MESSAGES AND SOLUTIONS

7.1 Messages displayed on the [CHECK] screen

E1. UV detection error

1. Remove the banknote from the stacker and press [START] to continue your count.
2. Try to count the suspected banknote again. Ensure that the unit is removed from any strong light source
3. If the machine gives an alarm signal when it should not, lower the sensitivity level
(for details see chapter 5.2.1).
4. If step 3 does not solve the problem it can be possible the UV sensors needs to be cleaned from dust
(for details see chapter 8.3).

Note: banknotes that have been washed may lose their UV properties and cause a “false alarm”.

E2. MG detection error

1. Remove the banknote from the stacker and press [START] to continue your count.
2. Try to count the suspected banknote again.
3. If the machine emits an alarm signal when it should not, lower the sensitivity level (for details see chapter 5.2.2).

E3. IR detection error

1. Remove the banknote from the stacker and press [START] to continue your count.
2. Check to see if the banknote is folded or if 2 banknotes are stuck together.
3. Ensure that the unit is removed from any strong light source.
4. Try to count the suspected banknote again.
5. If the machine gives an alarm signal when it should not, lower the sensitivity level (for details see chapter 5.2.3).
6. If the machine continues to emit an alarm signal when it should not, it can be necessary to adjust the hopper position (for details see chapter 7.3).

E4. Size detection error

1. Remove the banknote from the stacker and press [START] to continue your count.
2. If the banknote is not from a different denomination, check if the banknotes are folded or damaged causing the size detection alarm.
3. If the machine gives an alarm signal when it should not, lower the sensitivity level (for details see chapter 5.3).

E5. Banknote length error

1. Remove the banknote from the stacker and press [START] to continue your count.
2. Check to see if the banknote has entered the machine non-horizontally or not in the centre.
3. Check to see if the banknote is damaged.
4. Try to count the suspected banknote again, make sure to insert the banknote centred in the middle using the banknote guides.

7.2 Messages displayed on the [COUNT] screen

EA0 – EA5

1. Power Off the machine and disconnect the power cable from the power socket.
2. Remove all banknotes. Check if there are any obstructions in the machine.
3. Clean the machine using a dry brush and/or an air duster to remove dust from the sensors (see chapter 8.0 for details).

EA6 Error in the control panel

Contact Safescan for assistance: www.safescan.com.

7.3 Adjusting the hopper position

The position of the hopper adjusting wheel has already been set in optimal position in the factory. When unnecessary counting errors occur (i.e. E3 or E5), it can be needed to adjust the hopper position with the banknote thickness adjustment wheel to optimize the banknote transport.

Adjust the hopper position:

- If notes cannot be counted smoothly, increase the distance. Turn the wheel clockwise (-) to increase the distance.
- If the machine stops and displays the error codes E3 or E5, decrease the distance. Turn the wheel counter clockwise (+) to decrease the note thickness distance.



Please note:

The adjustment screw is very sensitive, make only minor adjustments.

8.0 MAINTENANCE

8.1 Clean the machine periodically with a brush or soft cloth

1. Power off the machine and disconnect the power cable from the power socket and lift the top cover (where the handle lays) to gain access to the interior.
2. Additionally, clean all dust from the machine and the sensors in the unit using a dry brush and/or an air duster to avoid paper particles or dust from sticking to the sensors.
3. The glass surface of the sensors may also be wiped with a soft cloth or cotton tip with some alcohol.

8.2 How to adjust the position of the hopper

If the settings of the hopper are wrong, the machine will not count accurately or will give counting errors. You can correct this by adjusting the hopper adjustment screw (for details see chapter 7.3).

8.3 Cleaning the UV detection system

1. Power Off the machine and disconnect the power cable from the power socket and lift the top cover (where the handle lays) to gain access to the interior.
2. Flip open the top cover of the machine.
3. Turn out the UV sensor holder. This is possible by pulling the holder out the click connection, then gently guide the holder upward.
4. The UV sensor is positioned in the middle of the UV sensor holder. Remove all dust from the UV sensors and UV LEDs.
5. Turn the holder inward and click it back in place.
6. Close the top cover.



9. TECHNICAL SPECIFICATION

Dimension (l x w x h)	: 292 x 246 x 178 mm
Weight	: 5.7 kg
Power	: 220-240V, 50 Hz
Fuse	: 2A slow, 250V
Power consumption	: max. 70 Watt
Banknote size	: min. 50 x 100 mm : max. 90 x 190 mm
Batch range	: 1-999

10. WARRANTY

Warranty procedure

Contact Safescan for assistance: www.safescan.com



This product is in compliance with the essential requirements and other relevant provisions of the applicable European directives. The Declaration of Conformity (DoC) is available at www.safescan.com



If possible, bring the machine to a recycling centre after usage. Do not throw away the product with the household waste.

Safescan Shop.it

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Cassetti Portadenaro ed Accessori**